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U. S. D. ~~Department of Agriculture~~

A series of radio talks by W. R. M. Wharton, chief, eastern district, Food, Drug and Insecticide Administration, United States Department of Agriculture, delivered Tuesday mornings at 10 a.m. eastern standard time, through Station WJZ in New York and the following other stations associated with the National Broadcasting Company: KWK, St. Louis; WREN, Kansas City; KFAB, Lincoln; WRC, Washington; WBZA, Boston; KSTP, St. Paul; WSM, Nashville; WAPI, Birmingham; WJAX, Jacksonville; WPTF, Raleigh and WRVA, Richmond.

Well friends and label readers, here I am back in New York. I talked to you from Washington last week. You know I come to you each week at this hour as a representative of the United States Government to tell you how your foods and drugs are safeguarded through enforcement of the Federal Food and Drugs Act and to tell you how to read food and drug labels.

As the Label Readers' Club grows, I am becoming more and more enthusiastic in this work. Your response is marvelous. I shall continue to give you practical advice on the meaning of labels and I have covered dozens of products already. Write now for free copies of all of my "How to Read the Label Information," and tell me if you are especially interested in any specific products that you want me to talk about. I want to say a word addressed specifically to the science students of the Forrest Park Junior High School of Springfield, Mass., who are listening to me today just as they have each Tuesday since my series began. Good luck boys, girls, and teachers.

Now for my personal experiences. Today I propose to relate a story about the penalty paid by paste because it contained a poisonous color and I shall tell you how a North Carolina mountaineer swindled some large essential oil dealers.

Alimentary paste is the general term applied to the well known products, macaroni, spaghetti, and the like. These products are manufactured from flour and water, usually from the semolina, the coarse granulation of Durum and hard wheat. When so made, these products possess a natural yellow color, but when made from other grades and cheaper wheat flours, this color is lacking.

A certain manufacturer possessed of that not uncommon human failing, desire for undeserved and quick gain, instituted a procedure in his large, alimentary paste factory of using a cheaper flour than semolina in the manufacture of macaroni, spaghetti, and the like, and to give these products the semblance, the appearance, to make them look like a semolina product, this manufacturer added an artificial yellow color to the mix.

Now my friends, appears your Federal food and drug inspector in the picture. Federal inspectors and federal chemists have regularly been investigating factory practices and sampling and analyzing food and drug products on the American market constantly for more than 20 years.

Your Federal food and drug inspector appeared at the factory of this manufacturer, and because Federal food and drug inspectors are specifically trained to study factory processes, and to know the character, condition, and

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quality of raw materials used in the manufacture of foods, it soon became apparent to your inspector that this manufacturer was making an inferior product and was coloring it to make it seem better than it actually was, and moreover, and of far greater importance, it was found that the yellow color being used was not a color which had been certified by the United States Department of Agriculture under the Food and Drugs Act, as a pure color but - this color was a poisonous color.

Your inspector thereupon ascertained the names of all the customers of this manufacturer. He found that the manufacturer had shipped five solid carloads, over 7,000 boxes, equalling nearly a quarter of a million pounds of macaroni, spaghetti, etc. to a Chicago dealer. The inspector went to Chicago, he collected representative samples from these lots, these samples were analyzed, and the presence of a poisonous color was confirmed.

After the usual court proceedings, formal seizure, and condemnation by a Federal judge, you could have seen if you had been there on a certain morning and at a certain hour, a long string of automobile trucks piled high with boxes of macaroni and the like, proceeding to the Chicago city dump. Here all of the offending boxes were placed in one pile, making a mountain, so it seemed, on the flat shores of Lake Michigan. Kerosene was liberally sprinkled on the pile and a match initiated the destruction of a quarter of a million pounds of a food product rendered injurious to health because it contained a poisonous color. The product otherwise would have gone into the homes and to the tables of 250,000 families.

This, my friends, is a story of the penalty paid by pastes because of poisonous color. Did this manufacturer repeat the offense? No! - and since this experience, all other manufacturers have kept poisonous colors out of paste. Thus, does the Federal Food and Drugs Act protect your foods, my friends.

Now for my North Carolina mountaineer story. A North Carolina mountaineer sent out a circular to the large American jobbers in essential oils, announcing that he was manufacturing birch oil by distillation of the bark of the sweet birch trees and he solicited orders. Pure birch oil at this time was selling for \$2.50 per pound. The chief flavoring agent in birch oil is the natural methyl salicylate which it contains. Now methyl salicylate is also made synthetically, and synthetic methyl salicylate was then selling for \$.46 per pound. Your food and drug inspector whose business it is to guard you against the adulteration of foods and drugs knew that synthetic methyl salicylate could easily be employed as an adulterant of birch oil. He visited the manufacturers of synthetic methyl salicylate and he obtained a list of all customers buying synthetic methyl salicylate and he found that large quantities of the synthetic product was being shipped to a small town in the mountains of North Carolina.

He proceeded to this town and he found that the receiver of this synthetic methyl salicylate was one and the same, as the man who was offering to sell essential oil dealers large quantities of pure birch oil. An investigation disclosed that the mountaineer did not make any real birch oil. He sold synthetic methyl salicylate as pure oil of birch, and he made the synthetic methyl salicylate look like oil of birch by coloring it brown by pouring it over old rusty scrap iron.

Having secured this information secretly, we arranged with certain dealers in synthetic methyl salicylate to introduce a very small quantity of a harmless

foreign chemical into all shipments of synthetic methyl salicylate going to the mountain section of North Carolina and Tennessee. In the course of a few weeks we began to find in shipments labeled pure birch oil this same identical chemical which we had placed in the synthetic methyl salicylate. Then, we had positive evidence that the oil of birch, which the mountaineer was shipping in large quantities, was adulterated with synthetic methyl salicylate. This is the marker method of the detection of food adulteration about which I have told you before.

The wheels of justice began to grind. Shipments of this so-called oil of birch were seized as violative of the Federal Food and Drugs Act, and the shipper was prosecuted. His activities were brought to a standstill. How much he gained by this scheme is unknown, but undoubtedly he found this business very lucrative. My friends, your Uncle Sam is constantly on guard to protect your food and drug supply.

Now, for my "Read-the-Label information." The subject today is oysters. We must consider this subject in three sub-divisions. (1) Oysters in the shell, (2) Freshly shucked raw oysters, and (3) Canned oysters. You have already learned that all packages of foods must bear a plain and conspicuous statement of the quantity of the food in the package. In the case of oysters in the shell, which are shipped in bags and barrels, the quantity statements are made in terms of numerical count or in terms of bushels and pecks. In the case of shucked oysters, the quantity statement is required to be made in terms of gallons, quarts, and pints, but some State laws require shucked oysters to be sold by count, and therefore sometimes both the liquid measure statement and the number of oysters in the package will be found on the label. In the case of canned oysters, the quantity statement appears in terms of avoirdupois measure, that is, pounds and ounces, and the statement generally represents the drained weight of oyster meats, but packers are allowed to declare the total weight of the contents of the can, including the liquid, and when such markings are made, declaration of the drained or cut-out weight is not required, but in all cases, the amount of drained contents must represent for a No. 1 can, 5 ounces; for a No. 2 picnic can, 8 ounces; and for a regular No. 2 can, 10 ounces.

Oysters in the shells are sometimes called Blue Points, Lynnhavens, Maurice River Cove, Chincoteagues, or by other names, which give the consumers information as to the locality of production, and qualities of flavor peculiar to oysters of the locality named, and some idea as to the size of the oyster. If you want small oysters you will order Blue Points.

Lynnhavens are a moderately large sized oyster, and these come from the vicinity of Lynnhaven in Virginia. Maurice River Cove oysters are oysters of large size grown on the New Jersey side of the Delaware Bay. Chincoteagues are oysters of moderately large size, quite salty in taste and grown in waters of the Sinapuxtant and other nearby bays of the eastern shore of Virginia. Many other such names are used to describe the location of production of oysters and these additional names denote certain characteristics of quality and sometimes of size.

In the South certain bodies of waters called bayous which bear specific names produce oysters of alleged superior quality and the names of these bayous are often applied to the oysters grown in them. The term floated oysters was formerly applied to shell oysters which had been floated in waters of less salinity than that in which they were grown. Floating in relatively fresh water is no longer permitted.

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Freshly shucked oysters, whether labeled or not must be a product substantially in the condition as produced by nature, that is, free from added water, and freed from sand, grit, and other extraneous material. They must be in a sweet and wholesome condition. Shucked oysters should not contain more than 10 per cent free liquor. My friends, if your local oyster gives you a product containing more than 10 per cent free liquor it is adulterated with water, and let me give you this advice, don't buy oysters from dispensing containers in which there is large quantities of liquid.- Buy oyster meats only from relatively dry oyster meat packages. Oysters which stand in fresh water, in dispensing containers are adulterated with water and they lose their flavor and are inferior.

Shucked oysters are graded as to size, the largest being called "Counts," the next size are named "Selects," then come "Extra Standards" and small oysters are called "Standards" or "Mediums." In some localities in the trade, small oysters are called culls and some times cullintines. The term "Extra Standard" is some times abbreviated to read "Extras." There is no definite provision that oysters so designated as to size shall have specific measurements. The terms are relative. A Count oyster coming from the Delaware Bay will be a larger oyster than a Count oyster coming from a location where smaller oysters on the average are grown. However, within any given area the terms will be understood to represent successive sizes from small to large, "Standards," "Extra Standards," "Selects," and "Counts." Another important statement on labels is the certificate statement. This usually appears on the package as a number preceded by the abbreviation of the name of the State issuing the certificate. For example, Md.118 means that the State of Maryland has issued certificate No. 118 to the packer putting up the package bearing this number and it indicates that the establishment of the packer using the certificate number has met the requirements of the State issuing the certificate as to sanitary conditions of plant, employees, and product. These certificates before issuance by the State authorities must be approved by the United States Public Health Service and that Service assists the State authorities in controlling the sanitation of oyster growing, handling and packing. Packers of oysters often put other reading matter on the label, such as "Our Best," or "Packed under the most sanitary conditions," or "Oysters that really satisfy." These statements are merely the packer's 'trade talk.' They are the kinds of trade puffs that the majority of packers of food products use in one form or another, and they do not mean very much, but their absence from the label should not be a cause for discrimination.

Canned oysters are always called "Cove oysters." The name cove came originally from the fact that the supply of oysters for canning was taken from sheltered bays called coves. The term has now lost its early significance, for oysters for canning are taken from any locality and are still called cove oysters. The term is now practically synonymous with canned oysters and has no other particular meaning any longer. Oysters used for canning purposes are generally what is known as natural growth or uncultivated oysters. They are small in size, and become even smaller by shrinking greatly before canning, because of the steaming process they receive. Nevertheless, these small oysters are sometimes graded into sizes called, "Standards," "Extra Standards," and "Selects." These names represent the relative sizes of canned oysters, and while they are similar to the terms applied to shucked oysters, a canned oyster called a "Standard" size would nowhere approximate the size of a raw oyster called a "Standard" size. This statement is made to make clear that while the similar terms representing

sizes are used for both raw and canned oysters, they mean different things according to their application. Oysters are canned in a brine solution and there are five sizes of cans used. Canned oysters are regularly put up in two sizes, No. 1's, and No. 2's. The No. 1 cans are required to contain 5 ounces of oyster meats determined by draining. The regular No. 2 can is required to contain 10 ounces of oyster meats. There are three other sizes used. Two of these are short No. 1's, containing 3 and 4 ounces of drained meats, respectively, and the other is a short or picnic No. 2, containing 8 ounces of drained meats. In view of the fact that these various sizes are on sale, you will see, label reader, the necessity for reading the quantity content statements carefully. If any of these sizes of cans contain less oyster meats than the quantity required to be in the package, then the package is considered slack filled and when the practice of slack filling has been detected, packers have been required to label all cans as "slack filled" with a statement reading, e. a., "This can contains 4-1/4 ounces," A can of this size should contain 5 ounces."

Now my friends, again I urge you to read labels before you buy. If you want to become an expert label reader and a discriminating buyer, as I know you do, write to W. R. M. Wharton, United States Department of Agriculture, 201 Varick Street, New York City, for copies of his talk on "How to Read Labels" and all subsequent radio broadcasts on this same subject. Next week at this hour, I expect to re-picture to you a movie which will tell its own story of the condemnation of a lot of putrid salmon. I will tell you a story about label counterfeiting and I will tell you more about how to read labels.

